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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
DO, CHAT C	

ART UNIT	PAPER NUMBER
2193	

NOTIFICATION DATE	DELIVERY MODE
12/04/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/676,051	UETANI, YOSHIHARU	
	Examiner	Art Unit	
	Chat C. Do	2193	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10/02/03; 01/12/05; 09/11/06; 08/06/08*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10,12 and 14-16* is/are pending in the application.

4a) Of the above claim(s) *8-10,12 and 14-16* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 January 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. 09/664,573.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *10/02/03; 09/11/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group I and Species I claims 1-7 in the reply filed on 08/06/2008 is acknowledged.

2. Claims 8-10, 12 and 14-16 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention Group II and species II, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 08/06/2008.

Specification

3. The disclosure is objected to because of the following informalities: the applicant is advised to update information cited in the "Cross-Reference to Related Applications" section in page 1 of the original specification as necessary.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 3-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re claim 3, the parameters L and M in the claim are not defined or unclear as what are the values of those parameters. For examination purposes, the examiner considers to normalize the parameters L and M as 1 and N as 8 accordingly. Thus, the rate of 2M2L data per clock period as 4 data per clock; 4(N/M)*(N/2)L periods as 4*8*4 = 128 periods; succeeding 4(N/M) periods as 32 periods.

Thus, claims 4-5 have the similar rejection as cited in claim 3 above.

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. Claims 1-7 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 1-7 cite an apparatus for performing DCT/IDCT in accordance with a mathematical algorithm. However, claims 1-7 merely disclose series mental steps/components for performing DCT/IDCT without disclosing a practical/physical application. Further, the claims appear to preempt every substantial practical application of the idea embodied by the claims. In addition, the apparatus claims 1-7 are considered as software per se since all the sections can be done by software modules. Therefore, claims 1-7 are directed to non-statutory subject matter.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Bhattacharya et al. (U.S. 5,550,765).

Re claim 1, Bhattacharya et al. disclose in Figures 1-9 a discrete cosine transformation apparatus (e.g. abstract and Figures 1-9) comprising: a transposition section which transposes data between a one-dimensional processing and a two-dimensional processing in every N pixels of an input picture signal of N.times.N pixels to produce a transposed output (e.g. by the transpose buffer 118 wherein NxN as 8x8 in col. 1 lines 31-38 and col. 4 lines 31-39); and a transformation section which subjects the transposed output of the transposition section to a discrete cosine transformation (e.g. by the 1-D transformer 112 in Figure 2 and claim 12 in col. 18).

Re claim 2, Bhattacharya et al. further disclose in Figures 1-9 the transposition section transposes the picture signal of 8.times.8 pixels in every eight pixels (e.g. col. 1 lines 31-38 and col. 4 lines 31-39).

Re claim 3, Bhattacharya et al. further disclose in Figures 1-9 an input processor which outputs data input in units of L, at a rate of 2M2 L data per clock period for 4(N/M).multidot.N/2 L periods and which, for the succeeding 4(N/M) periods, selects and outputs data output at 2M data per clock period from the transposition section to the

transformation section (e.g. by normalizing all the parameters L, M, and N as 1, 1, 8 and Figure 3 wherein input from component 214 is processed as a set of 4 and feedback from transpose buffer as a set of 8 in Figure 3).

Re claim 4, Bhattacharya et al. further disclose in Figures 1-9 the transposition section has a transposition memory in which N.times.N data are written at the rate of 2M data per clock period for 4(N/M).multidot.N/2 L periods, then transposed, and read out at the rate of 2M data per clock period for four clock periods (e.g. by normalizing all the parameters L, M, and N as 1, 1, 8 and Figure 3 wherein the feedback transpose memory has dual output for output twice data as input data into the processor as seen in Figure 3).

Re claim 5, Bhattacharya et al. further disclose in Figures 1-9 a control section which produces control signals including a first signal and a second signal (e.g. for controlling the muxes in Figure 3), the first signal being for limiting in every N/M clock periods the timing of starting the fetch of data input at the input terminal when the input of all the one-dimensional transformed data to the transformation section is not completed, but not limiting the timing of starting the fetch of data input to the input terminal when all the one-dimensional transformed data is completely input to the transformation section, and the second signal being indicative of a head of output block data (e.g. Figure 4 and col. 2 lines 43-58).

Re claim 6, it is IDCT claim having similar limitations cited in claim 1. Thus, claim 6 is also rejected under the same rationale as the rejection of rejected claim 1.

Re claim 7, it is IDCT claim having similar limitations cited in claim 2. Thus, claim 7 is also rejected under the same rationale as the rejection of rejected claim 2.

Double Patenting

10. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

11. Claims 1-7 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-2 of U.S. Patent No. 6,732,131. Although the conflicting claims are not identical, they are not patentably distinct from each other because:

> Claims 1-2 of Patent No. 6,732,131 contains every element of claims 1-7 of the instant application and thus anticipated the claims of the instant application. Claims of the instant application therefore are not patently distinct from the earlier patent claims and as such are unpatentable over obvious-type double patenting. A later patent/application claim is not patentably distinct from an earlier claim if the later claim is anticipated by the earlier claim.

"A later patent claim is not patentably distinct from an earlier patent claim if the later claim is obvious over, or **anticipated by**, the earlier claim. In re Longi, 759 F.2d at 896, 225 USPQ at 651 (affirming a holding of obviousness type double patenting because the claims at issue were obvious over claims in four prior art patents); In re Berg, 140 F.3d at 1437, 46 USPQ2d at 1233 (Fed. Cir. 1998) (affirming a holding of obviousness-type double patenting where a patent application claim to a genus is anticipated by a patent claim to a species within that genus). " ELI LILLY AND COMPANY v BARB LABORATORIES, INC., United States Court of Appeals for the Federal Circuit, ON PETITION FOR REHEARING EN BANC (DECIDED: May 30, 2001).

"Claim 12 and Claim 13 are generic to the species of invention covered by claim 3 of the patent. Thus, the generic invention is **"anticipated"** by the species of the patented invention. Cf., Titanium Metals Corp. v. Banner, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985) (holding that an earlier species disclosure in the prior art defeats any generic claim) 4 . This court's predecessor has held that, without a terminal disclaimer, the species claims preclude issuance of the generic application. In re Van Ornum, 686 F.2d 937, 944, 214 USPQ 761, 767 (CCPA 1982); Schneller, 397 F.2d at 354. Accordingly, absent a terminal disclaimer, claims 12 and 13 were properly rejected under the doctrine of obviousness type double patenting." (In re Goodman (CA FC) 29 USPQ2d 2010 (12/3/1993).

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. U.S. Patent No. 6,327,602

b. U.S. Patent No. 5,737,256

c. U.S. Patent No. 5,610,849

d. U.S. Patent No. 6,195,674

e. U.S. Patent No. RE36183

f. U.S. Patent No. 5,668,748

g. U.S. Patent No. 5,471,412

h. U.S. Patent No. 6,237,012

i. U.S. Patent No. 5,550,765

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHAT C. DO whose telephone number is (571)272-3721. The examiner can normally be reached on Tue-Fri 9:00AM to 7:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lewis Bullock can be reached on (571) 272-3759. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Chat C. Do/
Primary Examiner, Art Unit 2193

November 7, 2008